Technology Brief - Dual Junction (Preliminary)

ALTA DEVICES
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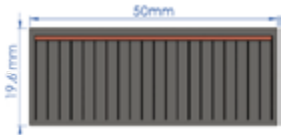
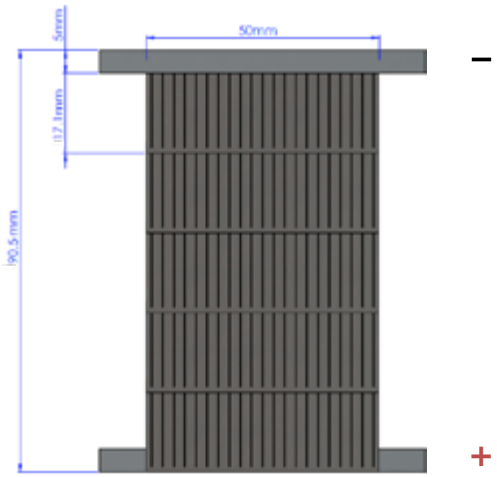
This technology performance brief is for the dual junction Gallium Arsenide photovoltaic product currently produced by Alta Devices. Cell-to-cell interconnect and cover lamination can be provided at customer's request.

Unshingled Cell

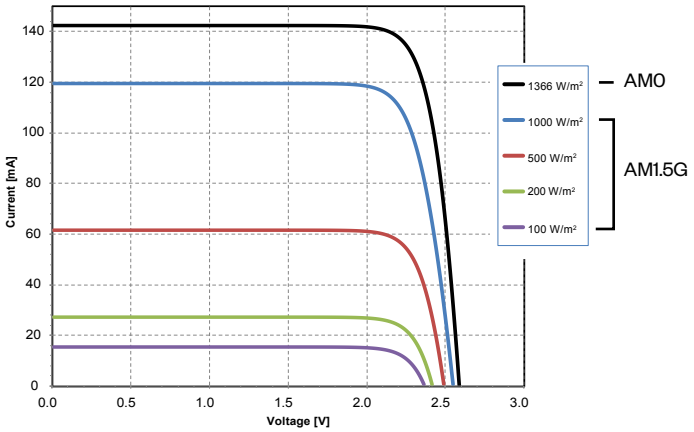


Example of 5x1: 5 Shingled Cells in Series

Assembly and Leads Provided by Alta Devices



Shingled IV Performance



Mechanical Characteristics		
Unshingled Area	mm	50 x 19.6
Shingled Area	mm	50 x 17.1
Density (Unshingled)	g/m^2	114
Weight per cell (Unshingled)	g	0.112
Radius if Curvature	cm	> 5

Electrical Characteristics		Typical at AM1.5, 1000W/m^2, 25°C	Estimated at AM0, 1366W/m^2, 25°C
Efficiency	[%]	29	25
Power per cell (Unshingled)	[W]	0.28	0.34
Power per cell (Shingled)	[W]	0.25	0.30
Power density	[W/m^2]	290	345
Open Circuit Voltage (Voc)	[V]	2.54	2.59
Max Power Voltage (Vmp)	[V]	2.14	2.14
Short Circuit Current (Isc)	[mA]	119	142
Max Power Current (Imp)	[mA]	116	138

Values correspond to shingled cells and represent optimal performance unless otherwise stated. Actual performance depends on product size and encapsulation.

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